

What is claimed is:

1. An underwater body storage and launch assembly adapted for mounting outside the pressure hull of a submarine, the assembly comprising:

a body adapted to be negatively buoyant;

a housing for enclosing said underwater body;

a body support structure positioned within said housing for supporting said body;

a pressure regulator system in communication with said housing for imposing a selected pressure on an interior of said housing;

a hatch pivotally mounted on said housing;

an actuator joined between said hatch and said housing for opening said hatch to permit the body to exit said hatch, and for closing said hatch; and

a release means disposed between at least one of said housing and said body support structure and said body

for releasing said body from said body support structure to permit the exit of said body by gravity.

2. The assembly in accordance with claim 1 further comprising a weight fixed to said body to assist in the exiting of said body from said housing, said weight being jettisonable after departure of said body from said housing.

3. The assembly in accordance with claim 1 wherein said housing is water tight and is adapted to withstand pressures at depths at least equal to deepest operating depths of the submarine.

4. The assembly in accordance with claim 3 wherein said pressure regulator system is adapted to pressurize the housing interior to a pressure equal to water pressure outside the housing.

5. The assembly in accordance with claim 4 wherein said actuator is adapted to operate upon the housing interior pressure reaching about equal to the water pressure outside the housing.

6. The assembly in accordance with claim 1 wherein said body support structure comprises a framework for holding said body inside said housing, and said release means is fixed in said

housing for retaining said body in place until said release means is operated in response to a launch signal to release said body.

7. The assembly in accordance with claim 6 wherein said framework is covered by an elastomeric material.

8. The assembly in accordance with claim 1 wherein said pressure regulator system comprises a selected one of main ballast tanks of the submarine and a gas generator.

9. The assembly in accordance with claim 1 wherein said assembly further includes additional underwater bodies, the bodies and body support structure therefor occupying most of the housing volume, leaving a minimal free volume for said pressure regulator to pressurize.

10. The assembly in accordance with claim 9 wherein said bodies comprise selected ones of weapons and vehicles.

11. The assembly in accordance with claim 4 wherein said pressure regulator system draws air from the high pressure air system of the submarine and is adapted, after launch of said body and closure of said hatch, to draw air from said housing and return the drawn air to the ballast tank.

12. The assembly in accordance with claim 5 wherein said actuator comprises a hydraulic actuator in communication with a hydraulic system of the submarine.

13. The assembly in accordance with claim 5 wherein said actuator comprises a pneumatic actuator

14. The assembly in accordance with claim 5 wherein said actuator comprises an electrical actuator.